State of South Carolina

Before the Public Service Commission of South Carolina

Docket No. 2002-223-E

In Re: Application of South Carolina Electric & Gas Company for Adjustments in the Company's Electric Rate Schedules and Tariffs	NOTICE OF CHANGE AND APPLICATION FOR INCREASE IN RATES AND CHARGES

Direct Testimony and Exhibits of

Michael Gorman

On behalf of

South Carolina Energy Users Committee

November 8, 2002
Project 7902

State of South Carolina

Before the Public Service Commission of South Carolina

Docket No. 2002-223-E

In Re: Application of South Carolina Electric & Gas Company for Adjustments in the Company's Electric Rate Schedules and Tariffs	NOTICE OF CHANGE AND APPLICATION FOR INCREASE IN RATES AND CHARGES

<u>Direct Testimony of Michael Gorman</u>

1 **Q   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A   My name is Michael Gorman and my business address is 1215 Fern Ridge Parkway,

3   Suite 208, St. Louis, MO 63141-2000.

4 **Q   WHAT IS YOUR OCCUPATION?**

5 A   I am a consultant in the field of public utility regulation with Brubaker & Associates, Inc.,

6   energy, economic and regulatory consultants.

7 **Q   PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A   These are set forth in Appendix A to my testimony.

9 **Q   ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10 A   I am appearing on behalf of the South Carolina Energy Users Committee (SCEUC). The

11   members of SCEUC include large industrial customers of South Carolina Electric & Gas

12   Company (SCE&G or Company).

1   **Q**   **WHAT IS THE SUBJECT OF YOUR TESTIMONY?**

2   A   In my testimony I recommend a fair return on common equity for SCEUC from the South

3   Carolina Public Service Commission (Commission).

4   **Q**   **PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

5   A   The estimation of a fair rate of return is by no means an exact science. However, there

6   are reasonable approaches to estimating a fair rate of return, but there also are ways to

7   manipulate the cost estimates either up or down. In my testimony, I offer what I believe

8   to be a conservative, middle of the road, estimate of a fair rate of return on equity for

9   SCE&G. Based on my analysis, I find that a fair return on common equity for SCE&G is

10   10.5%.

11   As shown on my Exhibit _____ (MPG-1), Schedule 1, my return on equity

12   recommendation and the Company's proposed capital structure and cost of debt will

13   provide it with a weighted average cost of capital of 8.89%, and provides SCE&G with an

14   opportunity to earn a pre-tax interest coverage ratio of 3.9 times on the assets included

15   in rate base. This pre-tax interest coverage ratio provides strong pre-tax earnings

16   coverage of debt interest expense to support SCE&G's current bond rating,[1] and

17   represents fair compensation for the risk SCE&G's investors assume by their utility

18   investment. My recommended return is a reasonable risk adjusted return, which

19   provides adequate coverage of debt interest expense and therefore will allow SCE&G an

20   ability to maintain its financial integrity, and attract capital under reasonable terms and

21   conditions.

---

[1] S&P's published utility bond rating benchmark sets a pretax interest coverage range of 3.3x to 4.0x to maintain a bond rating of "A" with a business position of 4 (S&P's Utilities and Perspectives, Utility Financial Targets, June 21, 1999).

1   I also respond to SCE&G witness Dr. Burton G. Malkiel's recommended return on

2   equity of 12.5% and recommend it be rejected as an excessive rate of return. Also, I

3   explain why I believe his methodologies inflate the estimate of a fair return on equity.

4   **CAPITAL STRUCTURE**

5   **Q**   **WHAT   CAPITAL   STRUCTURE   IS   SCE&G   RECOMMENDING   IN   THIS**

6   **PROCEEDING?**

7   A   SCE&G is recommending a capital structure composed of 43.96% long-term debt,

8   4.48% preferred stock and 51.56% common equity, as shown on Exhibit D-VII, Page 1,

9   of SCE&G's Application to Change Rates.

10   **Q**   **DO YOU BELIEVE THIS PROPOSED CAPITAL STRUCTURE IS REASONABLE FOR**

11   **RATEMAKING PURPOSES?**

12   A   Yes. SCE&G's proposed capital consisting of a 51.6% common equity ratio falls within

13   the range of the common equity ratios of the comparable utility group that I will use to

14   estimate a fair return on equity for SCE&G. Also, the Company's long-term debt ratio of

15   43.96% falls within Standard & Poor's (S&P) utility bond rating financial benchmarks of

16   total debt to total capital for a single "A" utility bond rating with a business position

17   ranking of 4, SCE&G's current rating. S&P targets a total debt to total capitalization ratio

18   to be within the range of 43.0% to 49.0% to be consistent with SCE&G's current bond

19   rating (Standard & Poor's, Utilities and Perspectives, Utility Financial Targets are

20   Revised, June 21, 1999 at 3).

1 **RETURN ON COMMON EQUITY**

2 **Q** **PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**

3 **COMPANY'S COST OF COMMON EQUITY.**

4 A In general, determining a fair cost of common equity for a regulated utility has been

5 framed by two decisions of the U.S. Supreme Court, in <u>Bluefield Water Works</u> vs <u>West</u>

6 <u>Virginia PSC</u> (1923) and <u>Federal Power Commission</u> vs <u>Hope Natural Gas Company</u>

7 (1944).

8 These decisions identify the general standards to be considered in establishing

9 the cost of common equity for a public utility. Those general standards are that the

10 authorized return should: (1) be sufficient to maintain financial integrity, (2) attract capital

11 under reasonable terms, and (3) be commensurate with returns investors could earn by

12 investing in other enterprises of comparable risk.

13 **Q** **PLEASE DESCRIBE WHAT IS MEANT BY "UTILITY'S COST OF COMMON**

14 **EQUITY."**

15 A The utility's cost of common equity is the return investors expect, or require, in order to

16 make an investment. Investors expect to achieve their return requirement from receiving

17 dividends and stock price appreciation.

18 **Q** **PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE THE COST**

19 **OF COMMON EQUITY FOR SCE&G.**

20 A I have used several models based on financial theory to estimate SCE&G's cost of

21 common equity. These models are: (1) the constant growth discounted cash flow (DCF)

22 model, (2) the bond yield plus equity risk premium model, and (3) a capital asset pricing

1   model (CAPM). I have applied these models to a broad based group of publicly traded

2   utilities that closely represent the investment risk of an electric utility similar to SCE&G.

3 **Q**   **HOW DID YOU SELECT A BROAD BASED GROUP OF ELECTRIC UTILITY**

4   **COMPANIES?**

5 **A**   I started with all the electric and combination electric and gas utilities followed by the

6   C.A. Turner Utility Reports. I limited the comparable group to the utilities that met the

7   following criteria: (a) had at least 80% of their revenues from the provision of electric

8   service; (b) had an investment grade bond rating from both S&P and Moody's; (c) are

9   currently paying a dividend; (d) have a consensus earnings growth rate published by the

10   sources discussed below, and were not noted by Value Line as currently in the process

11   of reporting significant write-offs of non-regulated utility investments or do not have

12   significant exposure to non-regulated operations.

13   As shown on my Exhibit _____ (MPG-1), Schedule 2, these selection criteria

14   produced a broad-based group of six electric companies from which to estimate a fair

15   return for SCE&G. SCANA was not included in the comparable group because it does

16   not meet the selection criteria.

17 **Q**   **HOW DOES SCE&G'S RISK PROFILE COMPARE TO THAT OF YOUR PROXY**

18   **GROUP?**

19 **A**   SCE&G's risk profile is very similar to that of my proxy group. SCE&G currently has a

20   S&P bond rating of A- and a Moody's bond rating of A3. SCE&G's bond rating is very

21   similar to the group average bond rating of A and A2 from S&P and Moody's,

22   respectively. Bond rating analysts consider both the business and financial risk of an

1   enterprise in assigning bond ratings. Based on professional credit analysts' estimates,

2   SCE&G's risk profile is comparable to that of my proxy group.

3   However, a review of business and financial risk factors indicates that SCE&G is

4   somewhat less risky than my proxy group. For example, SCE&G's proposed common

5   equity ratio of 51.6% is higher than my proxy group average of 47%.   However,

6   SCE&G's equity ratio does fall within the group's range. A higher common equity ratio,

7   all else equal, suggests SCE&G has less financial risk than my proxy group.

8   Also, SCE&G's electric revenue percentage of total revenue meets my selection

9   criteria, and its net plant amount falls within the proxy group range. These factors

10   indicate comparable business risk. However, the companies in my proxy group have

11   some exposure, albeit limited, to non-regulated investments.   These non-regulated

12   investment business risks are greater than that of SCE&G's regulated utility operations.

13   Based on these risk factors, the proxy group serves as a conservative risk proxy

14   for SCE&G.

15   **DISCOUNTED CASH FLOW (DCF) MODEL**

16   **Q   PLEASE DESCRIBE THE DCF MODEL.**

17   A   The DCF model posits that a stock price is valued by summing the present value of

18   expected future cash flows discounted at the investor's required rate of return (ROR) or

19   cost of capital. This model is expressed mathematically as follows:

20   $$P_o = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \, .\,.\,.\,.\, \frac{D_E}{(1+K)^E} \quad \text{where}$$ (Equation 1)
21
22   P_o = Current stock price
23   D = Dividends in periods 1 - E
24   K = Investor's required return

1   This model can be rearranged in order to estimate the discount rate or investor

2   required return, "K." If it is reasonable to assume that earnings and dividends will grow

3   at a constant rate, then Equation 1 can be rearranged as follows:

4          $K = D_1/P_0 + G$ (Equation 2)

5   K = Investor's required return
6   D_1 = Dividend adjusted for growth
7   P_0 = Current stock price
8   G = Expected constant dividend growth rate

9   Equation 2 is referred to as the "constant growth" annual DCF model.

10   **Q   PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.**

11   A   As shown under Equation 2 above, the DCF model requires a current stock price,

12   expected dividend, and expected growth rate in dividends.

13   **Q   WHAT STOCK PRICE AND DIVIDEND HAVE YOU RELIED ON IN YOUR CONSTANT**

14   **GROWTH DCF MODEL?**

15   A   I relied on the average of the weekly high and low stock prices over a 13-week period

16   ending October 28, 2002. An average stock price is less susceptible to market price

17   variations than is a spot price. Therefore, an average stock price is less susceptible to

18   aberrant market price movements, which may not be reflective of the stock's long-term

19   value.

20   A 13-week average stock price is short enough to contain data that reasonably

21   reflects current market expectations, but is not too short a period to be susceptible to

22   market price variations that may not be reflective of the security's long-term value.

23   Therefore, in my judgment, a 13-week average stock price is a reasonable balance

24   between the need to reflect current market expectations and to capture sufficient data to

25   smooth out aberrant market movements.

1   I used the most recently paid quarterly dividend, as reported in the Value Line

2   Investment Survey. This dividend was annualized (multiplied by 4) and adjusted for next

3   year's growth to produce the D_1 factor for use in Equation 2 above.

4 **Q**   **WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR DCF MODEL?**

5 A   There are several methods one can use in order to estimate the expected growth in

6   dividends. However, for purposes of determining the market required return on common

7   equity, one must attempt to estimate what the consensus of investors believes the

8   dividend or earnings growth rate will be, and not what an individual investor or analyst

9   may use to form individual investment decisions.

10   Security analyst growth estimates have been shown to be more accurate

11   predictors of future returns than growth rates derived from historical data.[2] Because they

12   are more reliable estimates, and assuming the market, in general, makes rational

13   investment decisions, analysts' growth projections are the most likely growth estimates

14   that are built into stock prices.

15   For my constant growth DCF analysis, I have relied on the consensus, or mean,

16   of professional security analysts' earnings growth estimates as a proxy for the investor

17   consensus dividend growth rate expectations. I relied on three sources of consensus

18   analyst growth rate estimates: Zack's Detailed Analyst, First Call, and Multex. The

19   growth rates and references are as follows:

---

[2] See, for example, David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," The Journal of Portfolio Management, Spring 1989.

	Publication*	Reference
	Zack's	Zack.com
	First Call	ThomsonFN.com
	Multex	MultexInvestor.com

*October 30, 2002

These publications survey security analysts and publish a simple arithmetic average or mean of surveyed analysts' earnings growth forecast. A simple average of the analysts' growth forecast gives equal weight to all surveyed analysts' projections. It is problematic as to whether any particular analyst's forecast is most representative of general market expectations. Therefore, a simple average, or arithmetic mean, analyst forecast is a good proxy for market consensus expectations.

As shown on the attached Exhibit _____ (MPG-1), Schedule 3, the group average growth rates ranged from 5.09% to 5.76%, with an average of the three sources for the group of 5.27%. The schedule also shows the number of analysts included in the average growth rate estimate.

Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?

A The results of my DCF analyses are shown on Exhibit _____ (MPG-1), Schedule 4. As shown on Schedule 4, the average DCF cost of common equity for the comparable group is 11.1%.

RISK PREMIUM MODEL

Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.

A This model is based on the principle that investors require a higher ROR to assume greater risk. Common equity investments have greater risk than bonds because bonds have more security of payment in bankruptcy proceedings than common equity and the

1   coupon payments on bonds represent contractual obligations. In contrast, companies

2   are not required to pay dividends on common equity, or to guarantee returns on

3   common equity investments. Therefore, common equity securities are considered to be

4   more risky than bond securities.

5   This risk premium model is based on two estimates of an equity risk premium.

6   First, I estimated the difference between the required return on utility common equity

7   investments and Treasury bonds. The difference between the required return on

8   common equity and the bond yield is the risk premium. I estimated the risk premium on

9   an annual basis for each year over the period 1986 through year-end 2001. The

10   common equity required returns were based on regulatory commission-authorized

11   returns for electric utility companies. Authorized returns are typically based on expert

12   witnesses' estimate of the contemporary investor required return.

13   The second equity risk premium method is based on the difference between

14   regulatory commission authorized returns on common equity and contemporary utility

15   bond yields. Based on this analysis, as shown on my Exhibit _____ (MPG-1),

16   Schedule 5, the average indicated equity risk premium of authorized electric utility

17   common equity returns over U.S. Treasury bond yields has been 4.8%. Of the 16

18   observations, 12 indicated risk premiums fall in the range of 4.1% to 5.6%. Since the

19   risk premium can vary depending upon market conditions and changing investor risk

20   perceptions, I believe using an estimated range of risk premiums provides the best

21   method to measure the current return on common equity using this methodology.

22   As shown on my Exhibit _____ (MPG-1), Schedule 6, the average indicated

23   equity risk premium over a contemporary Moody's utility bond yield was 3.46% over the

24   period 1986–2001. Again, removing the two highest and lowest risk premium estimates

25   produces an equity risk premium in the range of 3.0% to 3.85% over this time period.

1 **Q HOW DID YOU ESTIMATE SCE&G'S COST OF COMMON EQUITY WITH THIS**

2 **MODEL?**

3 A I added to my estimated equity risk premium over Treasury yields a projected long-term

4 Treasury bond yield. Blue Chip Financial Forecasts projects long-term Treasury bond

5 yields to be 5.8%, and a 10-year Treasury bond to be 5.2% (October 1, 2002 at 2).

6 Using the projected long-term bond yield of 5.8%, and an equity risk premium of 4.1% to

7 5.6%, produces an estimated common equity return in the range of 9.9% to 11.4%, with

8 a mid-point estimate at 10.7%.

9 I next added my equity risk premium over utility bond yields, the current yield on

10 an "A" rated utility bond. As reported on Mergent Public Utility, News Reports, the yield

11 on a utility bond with an "A" rating was 7.36% as reported on October 18, 2002. The

12 premium in the range of 3.0% to 3.85% produces a cost rate of 10.4% to 11.2%, with a

13 mid-point of 10.8%.

14 **CAPITAL ASSET PRICING MODEL**

15 **Q PLEASE DESCRIBE THE CAPM.**

16 A The CAPM method of analysis is based upon the theory that the market required ROR

17 for a security is equal to the risk-free ROR, plus a security specific risk premium. This

18 relationship between risk and return can be expressed mathematically as follows:

19 $R_i = R_f + B_i \times (R_m - R_f)$ where:

20 R_i = Required ROR for stock i
21 R_f = Risk-free rate
22 R_m = Expected return for the market portfolio
23 B_i = Measure of the risk for stock I

24 The stock specific risk term in the above equation is beta. Beta represents the

25 investment risk that cannot be diversified away when the security is held in a diversified

26 portfolio. When stocks are held in a diversified portfolio, firm-specific risks can be

1   eliminated by balancing the portfolio with securities that react in opposite direction to

2   firm-specific risk factors (e.g., business cycle, competition, product mix and production

3   limitations).

4   The risks that cannot be eliminated when held in diversified portfolio are

5   nondiversifiable risks. Nondiversifiable risks are related to the market in general and are

6   referred to as systematic risks. Risks that can be eliminated by diversification are

7   regarded as nonsystematic risks. In a broad sense, systematic risks are market risks,

8   and nonsystematic risks are business risks. The CAPM theory maintains that the market

9   will not compensate investors for assuming risks that can be diversified away.

10   Therefore, the only risk that investors will be compensated for are systematic or

11   nondiversifiable risks. The beta is a measure of the systematic or nondiversifiable risks.

12   **Q**   **PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

13   A   The CAPM requires an estimate of the market risk-free rate, the company's beta, and

14   the market risk premium.

15   **Q**   **WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?**

16   A   I used Blue Chip Financial Forecasts projected long-term Treasury bond yield of 5.8%

17   (October 1, 2002 at 2).

18   **Q**   **WHY DID YOU USE TREASURY BOND YIELDS AS AN ESTIMATE OF THE RISK-**

19   **FREE RATE?**

20   A   Treasury securities are backed by the full faith and credit of the United States

21   government. Therefore, long-term Treasury bonds are considered to have negligible

22   credit risk. Also, long-term Treasury bonds have an investment horizon similar to that of

1   common stock. As a result, investor-anticipated long-run inflation expectations are

2   reflected in both common stock required returns and long-term bond yields. Therefore,

3   the nominal risk-free rate (or expected inflation rate and real risk-free rate) included in a

4   long-term bond yield is a reasonable estimate of the nominal risk-free rate included in

5   common stock returns.

6   Treasury bond yields, however, do include risk premiums related to unanticipated

7   future inflation and interest rates. Therefore, a Treasury bond yield is not a risk-free

8   rate. Risk premiums related to unanticipated inflation and interest rates are systematic

9   risks. Consequently, for companies with betas less than one, using the Treasury bond

10 yield as a proxy for the risk-free rate in the CAPM analysis can produce an overstated

11 estimate of the CAPM return.

12 **Q**   **WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

13 A   I relied on the group average beta estimate for the comparable group. Group average

14 beta is more reliable than a single company beta and will, therefore, produce a more

15 reliable CAPM estimate.

16   A group average beta has stronger statistical parameters that better describe the

17 systematic risk of the group than does an individual company beta. For this reason, a

18 group average beta will produce a more reliable return estimate.

19   As shown on Exhibit _____ (MPG-1), Schedule 7, the group average beta

20 estimate is 0.54.

21 **Q**   **HOW DID YOU DERIVE YOUR MARKET PREMIUM ESTIMATE?**

22 A   I derived two market premium estimates, a forward-looking estimate and one based on a

23 long-term historical average.

1   The forward-looking estimate was derived by estimating the expected return on

2   the market (S&P 500) and subtracting the risk-free rate from this estimate. I estimated

3   the expected return on the S&P 500 by adding an expected inflation rate to the long-term

4   historical arithmetic average real return on the market. The real return on the market

5   represents the achieved return above the rate of inflation.

6   The Ibbotson and Associates' Stocks, Bonds, Bills and Inflation 2002 Year Book

7   publication estimates the historical arithmetic average real market return over the period

8   1926-2001 at 111 as 9.4%. A current consensus analyst inflation projection, as

9   measured by the Consumer Price Index, is 2.5% through 2003 (Blue Chip Financial

10   Forecasts, October 1, 2002). Using these estimates, the expected market return is

11   12.1%. The market premium then is the difference between the 12.1% expected market

12   return and my 5.8% risk-free rate estimate, or 6.3%.

13   The historical estimate of the market risk premium was also estimated by

14   Ibbotson and Associates in the Stock, Bonds, Bills and Inflation, 2001 Year Book. Over

15   the period 1926 through 2001, Ibbotson's study estimated that the arithmetic average of

16   the achieved total return on the S&P 500 was 12.7%, and the total return on long-term

17   Treasury bonds was 5.7%. The indicated equity risk premium is 7.0% (12.7% - 5.7% =

18   7.0%).

19   **Q**   **WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

20   A   As shown on Exhibit _____ (MPG-1), Schedule 8, based on the prospective market risk

21   premium estimate of 6.3% and historical estimate of 7.0%, the CAPM estimated return

22   on equity is 9.2% and 9.6%, respectively, with a mid-point of 9.4%.

1 **RETURN ON EQUITY SUMMARY**

2 **Q   BASED ON THE RESULTS OF YOUR RATE OF RETURN ON COMMON EQUITY**

3 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO YOU**

4 **RECOMMEND FOR SCE&G?**

5 A   Based on my analyses, I estimate an appropriate return on equity for SCE&G to be in

6   the range of 10.0% to 11.0%, with a mid-point estimate of 10.5%. The high end of my

7   estimated range, 11.0%, is based on my DCF and risk premium analyses, and the

8   bottom of my range is based on my risk premium and CAPM analyses.

TABLE 1	
Return on Common Equity Summary	
Description	Percent
Constant Growth DCF	11.2%
Risk Premium	10.7%-10.8%
CAPM	9.4%

9 **Response to SCE&G**

10 **Q   WHAT RATE OF RETURN ON COMMON EQUITY IS SCE&G REQUESTING IN THIS**

11 **PROCEEDING?**

12 A   SCE&G is requesting a return on common equity of 12.5%. This return on common

13   equity is supported by SCE&G witness Dr. Burton G. Malkiel. Dr. Malkiel relies on the

14   comparable risk proxy group developed by SCE&G witness Mr. Thomas R. Osborne and

15   constructs a DCF analysis to estimate SCE&G's return on common equity. He then

16   checks the results of this estimate with a DCF analysis on a second electric utility group

17   he contends represents greater risk than SCE&G.

1 **Q** **HOW DID MR. OSBORNE SELECT HIS GROUP OF COMPANIES COMPARABLE IN**

2 **RISK TO SCE&G?**

3 A Mr. Osborne states that he relied on risk factors to identify companies with comparable

4 risk to SCE&G. He states at Page 6 of his testimony that he considered total market

5 capitalization, capital structure, financial leverage, credit ratings, S&P business position

6 ranking, distribution of assets and operational flows from regulated electric and gas

7 operations, the extent of unregulated investments and business activities, and

8 profitability. Based on these selection criteria he identified seven companies with

9 comparable risk to SCE&G, as shown on his Exhibit Nos. TRO-1 through TRO-3.

10 **Q** **DO YOU HAVE ANY ISSUES CONCERNING MR. OSBORNE'S DEVELOPMENT OF**

11 **A COMPARABLE GROUP?**

12 A Yes. I have two issues. First, Mr. Osborne identified many risk factors but does not

13 show how the risk profile of his group compares to SCE&G's risk profile. I believe two of

14 the companies included in Mr. Osborne's group do not meet his own risk selection

15 criteria. Specifically, DPL and Great Plains Energy do not meet Mr. Osborne's risk

16 criteria and are clearly not reasonable risk proxies for SCE&G. By including these

17 companies in his proxy group the return on equity estimated by Dr. Malkiel from this

18 proxy group overstates a fair return on equity for SCE&G.

19 I don't take issue with the risk factors that Mr. Osborne considered, but I do note

20 that the risk factors of his comparable group do not appear to be reasonably comparable

21 to those of SCE&G. For example, SCE&G's ratemaking ratio of debt to total capital is

22 approximately 44.0%. The long-term debt ratio to total capital ratio of Mr. Osborne's

23 proxy group is 59%, as shown on his Exhibit TRO-3. The group's higher debt ratio

24 indicates more financial risk.

1   Also, SCE&G's S&P business position ranking is 4. The average S&P business

2 position ranking of Mr. Osborne's comparable group is 5, as shown on this same

3 schedule. SCE&G's S&P and Moody's bond ratings are A- and A3, respectively. These

4 bond ratings are stronger than the bond ratings of most of the companies included in Mr.

5 Osborne's comparable group.

6   A significant flaw in Mr. Osborne's presentation is failure to show how SCE&G's

7 risk profile is comparable to that of his proxy group. Without such a presentation, the

8 Commission should have no confidence that Mr. Osborne's proxy group is a reasonable

9 risk proxy for SCE&G.

10 **Q**   **PLEASE DESCRIBE WHY YOU BELIEVE THAT DPL AND GREAT PLAINS ENERGY**

11   **SHOULD SPECIFICALLY BE EXCLUDED FROM MR. OSBORNE'S PROXY GROUP.**

12 A   First, as shown on Mr. Osborne's Exhibit TRO-3, DPL Inc. and Great Plains Energy have

13   S&P business position rankings of 6. This business position ranking is out of line with

14   SCE&G's business position ranking of 4, and is also out of line with industry averages

15   for utility companies. S&P reports that only 15% of the utility companies it follows have

16   business position rankings of 6. Over 64% have business position rankings between 3

17   and 5.[3] The risk of these companies are distinguishable from SCE&G based on this risk

18   factor.

19   Second, DPL and Great Plains Energy's ratio of equity book value to total book

20   capital, as shown on Mr. Osborne's Exhibit TRO-3, is out of line with the other

21   companies in the group. As shown below in Table 2, DPL has a common equity ratio of

22   25%, and Great Plains Energy has a common equity ratio of 39%. This equity ratio is

23   much lower than the equity ratios of the other companies in the comparable group and

1   considerably lower than SCE&G's 51.6% common equity ratio. A lower equity ratio

2   indicates greater financial risk. If DPL and Great Plains are removed from the group, the

3   group equity ratio would increase to 44.6%, which is closer, albeit still lower, than

4   SCE&G.

5   Based on these two criteria, at a minimum I believe that DPL and Great Plains

6   Energy should have been excluded from Mr. Osborne's comparable group.

TABLE 2

Capital Structure Ratios

Company Name	Percent of Equity to Total Capital	Percent of Pfd. Stock to Total Capital	Percent of Long-Term Debt To Total Capital	Total
DPL Inc.	25.4%	9.5%	65.1%	100%
Energy East	41.4%	8.5%	50.1%	100%
Great Plains Energy	38.8%	9.7%	51.5%	100%
IDACORP, Inc.	49.6%	5.9%	44.5%	100%
NSTAR	42.1%	1.4%	56.4%	100%
Pinnacle West Capital Corp.	43.8%	0.0%	56.2%	100%
Vectren Corp.	46.3%	0.0%	53.7%	100%
Group Average	41.1%	5.0%	53.9%	100%

Source: Osborne's Exhibit __ (TRO-3); SCE&G witness Thomas

---

7   There is an additional reason to exclude DPL. DPL's most recent Value Line

8   report, October 4, 2002, Value Line notes that DPL has over a $1 billion investment

9   portfolio and total capital in 2002 of $3.2 billion. Hence, 33% of DPL's capital is invested

10   in a stock portfolio. This fails Mr. Osborne's requirement that the company be engaged

11   primarily in regulated utility operations. Further, Value Line notes that DPL's non-

12   regulated investment portfolio has been performing poorly, and DPL is expected to

---

[3] Credit Quality for U.S. Utilities Continues Negative Trend in Second Quarter, Standard & Poor's, July 12, 2002.

1   record a $155 million write-down to reflect the impairment to the value of the investment

2   portfolio. DPL's investment portfolio creates risks not attributable to regulated utility

3   operations. Thus, a DCF of DPL would not provide a meaningful estimate of a fair return

4   for SCE&G's utility operations.

5 **Q**   **PLEASE DESCRIBE DR. MALKIEL'S METHOD OF ESTIMATING A RETURN ON**

6   **EQUITY BASED ON MR. OSBORNE'S COMPARABLE UTILITY GROUP.**

7 A   Dr. Malkiel estimated a return on equity based on the comparable group identified by Mr.

8   Osborne using a discounted cash flow analysis. In the table on Page 18 of his

9   testimony, Dr. Malkiel used a dividend yield as of August 1, 2002, and used two

10   estimates of consensus analysts' growth rates: IBES and FirstCall. Based on this

11   analysis, without a flotation cost adjustment, Dr. Malkiel estimated a common equity

12   return of 12.35%.

13   Mr. Malkiel then checked the results of his DCF analysis by performing a second

14   DCF analysis on a group of electric utility companies he maintains have less risk than

15   that of SCE&G. Based on this second proxy group analysis, using a dividend yield as of

16   April 1, 2002 and consensus analysts' growth rate projections from IBES and FirstCall,

17   Dr. Malkiel estimated a DCF return in the range of 11.83% to 11.73%.

18   Dr. Malkiel then proposed a flotation cost adjustment to his overall rate of return

19   reflecting the Company's proposed capital structure of 51.5% common equity and

20   48.44% long-term debt, and a cost of debt of 7.2%. As shown in Table 5 at Page 22 of

21   his testimony, excluding a flotation cost adjustment, Dr. Malkiel's proposed 12.3% return

22   on equity produces an overall return of 9.8%. At Page 24 of his testimony, Dr. Malkiel

23   shows that with the proposed 4.25% flotation cost adjustment, the overall rate of return

1   would increase to 10.2%. The return on equity would increase to 12.8%, and the cost of

2   debt would increase to 7.5%.

3 **Q**   **DO YOU HAVE ANY GENERAL COMMENTS CONCERNING DR. MALKIEL'S**

4   **METHOD OF ESTIMATING A RETURN ON EQUITY FOR SCE&G IN THIS**

5   **PROCEEDING?**

6 **A**   Dr. Malkiel has relied solely on the DCF analysis to estimate a return on equity for

7   SCE&G in this proceeding. Relying entirely on one model does not produce a reliable

8   estimate of a fair return on equity. The DCF model should be used with other market-

9   based models to produce a range of estimates to support a reasonable and fair estimate

10   of SCE&G's cost of equity. DCF results can be skewed by unreasonably high or low

11   growth rate estimates, and abnormal stock price values that temporarily distort the

12   dividend yield. These factors can distort the results of a DCF analysis. Using more than

13   one market-based model to estimate a fair return on equity for a utility company provides

14   a range of return on equity estimates that improves the accuracy of the return on equity

15   estimate.

16   Dr. Malkiel's DCF analysis is limited in scope, not supported by other analyses,

17   and therefore is subject to significant errors and distortions.

18 **Q**   **DO YOU HAVE ANY COMMENTS CONCERNING DR. MALKIEL'S DCF ANALYSIS?**

19 **A**   Yes. Dr. Malkiel's DCF analysis is based on Mr. Osborne's comparable utility group. As

20   noted above, I take issue with two of the companies included in this comparable group,

21   DPL Inc. and Great Plains Energy. These two companies' DCF results are higher than

22   the group average DCF results as shown in Dr. Malkiel's Table 2 at Page 18 of his

1   testimony.   Had these companies' DCF returns been removed from the comparable

2   group, Dr. Malkiel's estimate would be lower as shown on Table 3 below.

TABLE 3

Adjusted Comparable Group Market DCF Results

Company	Dividend Yield (Percent)	I/B/E/S Estimated Long-Term Growth (Percent)	FirstCall Long-Term EPS Growth (Percent)	Estimate of Equity Cost of Capital (Percent)		
				I/B/E/S	FirstCall	Average
Energy East	47%	6.8%	6.0%	11.5%	10.7%	11.1%
IDACORP, Inc.	7.3%	8.0%	8.0%	15.3%	15.3%	15.3%
NSTAR	5.0%	6.4%	7.0%	11.4%	12.0%	11.7%
Pinnacle West Capital	4.8%	6.6%	6.0%	11.4%	10.8%	11.1%
Vectren Corp.	4.6%	7.7%	7.0%	12.3%	11.6%	12.0%
Average	5.3%	7.1%	6.8%	12.4%	12.1%	12.2%

_____
Source: Dr. Malkiel's Direct Testimony at 18.

---

3   Second, the group average growth rate for the companies included in Dr.

4   Malkiel's adjusted group in the table above is 7.1% using IBES, and 6.8% using

5   FirstCall. Consensus analysts' projections of the long-term nominal growth of the U.S.

6   economy is currently 5.5%[4] (Blue Chip Financial Forecast, October 1, 2002, at 2). It is

7   unreasonable and illogical to believe that the growth rate of the companies included in

8   this comparable group could exceed the growth rate of the economy where they sell

9   their goods and services. Therefore, the maximum sustainable growth rate in a DCF

10   analysis should be limited to the current projected nominal growth to the U.S. economy.

11   Using a 5.5% growth rate and the adjusted group average dividend yield of 5.3%,

12   produces a DCF estimate of 10.8%. Using all the companies included in Mr. Osborne's

13   comparable utility group produces an average dividend yield of 5.7%. The individual

1   dividend yields are shown on Page 18 of Dr. Malkiel's testimony. The dividend yield of

2   5.7%, and a growth rate of 5.5%, produces an adjusted DCF return of 11.2%. The DCF

3   return based on more reasonable and sustainable growth rate estimates produces DCF

4   returns that are more in line with the DCF return estimated in my analysis above.

5 **Q   DO YOU HAVE ANY COMMENTS CONCERNING DR. MALKIEL'S DEVELOPMENT**

6   **OF A SECOND PROXY GROUP?**

7 A   Yes. A DCF estimate of the second larger sample of gas and electric utilities does not

8   produce a reasonable estimate of a fair return for SCE&G. Dr. Malkiel has not shown

9   that these companies constitute a reasonable risk proxy for SCE&G, and on that basis

10   alone, they should not be used as a basis to establish a fair rate of return.

11   Further, the growth rates for the companies included in this analysis supporting

12   the estimated DCF return of 11.83% to 11.73%, are 7.0% and 6.9%, respectively.

13   These growth rates are clearly out of line with the current projected nominal growth rate

14   of 5.5%. As stated above, the nominal growth rate to the U.S. economy should serve as

15   a maximum estimate of a sustainable long-term growth rate for utility companies. The

16   DCF returns for this second proxy group are based on unreasonably high growth rates

17   that are not sustainable indefinitely, and therefore produce overstated DCF results.

18   For these reasons, the DCF results for Dr. Malkiel's second sample of large

19   electric and gas companies should be rejected.

20 **Q   PLEASE DESCRIBE DR. MALKIEL'S FLOTATION COST ADJUSTMENT.**

21 A   Dr. Malkiel observes that the Company is projecting to go to the market for both debt

22   and equity financing based on Dr. Malkiel's review of the Company's three-year forecast

---

[4] Real GDP 3.4% and GDP price index: 2.0%.

1   of cash flows. He thus proposes to adjust the overall rate of return to compensate for

2   the issuance of additional securities. He creates this adjustment by assuming the

3   Company will incur a 4.25% cost of flotation. Using the equation he identifies on Page

4   23 of his testimony, he proposes to increase his estimated cost of equity and debt by

5   0.5% and 0.3%, respectively, to reflect a 4.25% flotation cost for equity and debt

6   securities.

7   After flotation cost adjustments, Dr. Malkiel's estimated weighted average cost of

8   capital for SCE&G of 9.8% is increased to 10.2%, as shown at Page 24 of his testimony.

9 **Q   DO YOU HAVE ANY COMMENTS CONCERNING DR. MALKIEL'S PROPOSED**

10   **FLOTATION COST ADJUSTMENT?**

11 A   Yes. Dr. Malkiel's proposed flotation cost adjustment should be rejected because it is

12   not based on actual expenses for SCE&G. Therefore, Dr. Malkiel's flotation cost

13   adjustment is not based on known and measurable expenses. Issuance expenses for

14   SCE&G's debt and equity securities should be recorded and accounted for on SCE&G's

15   financial statements. A proper accounting of issuance expenses would allow an audit

16   and verification of SCE&G's actual and prudent flotation expenses.

17   Reasonable and prudent debt issuance flotation expenses should then be

18   amortized in the cost of the new debt securities.

19   Reasonable and prudent flotation expenses for common equity securities should

20   also be recorded. Actual and prudent equity flotation expenses can either be amortized

21   in SCE&G's cost of service, reflected as an increase to the common equity balance or

22   an adder to the return on equity. Any of these methods will provide fair compensation of

23   reasonable and prudent out-of-pocket <u>cash</u> expenses for the issuance of securities.

1   However, before an adjustment is permitted, it is important to know the amount of

2   the Company's actual reasonable and prudent security cash flotation expenses.

3   Flotation cost adjustments should not be made, as proposed by Dr. Malkiel, based on a

4   hypothetical estimate of what these flotation expenses might be or might have been.

5   Therefore, Dr. Malkiel's proposed flotation cost adjustment should be rejected.

6 **Q   DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

7 A   Yes.

Qualifications of Michael Gorman

1 **Q** **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Michael P. Gorman. My business mailing address is P. O. Box 412000, 1215 Fern

3 Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

4 **Q** **PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and a principal at Brubaker &

6 Associates, Inc., energy, economic and regulatory consultants.

7 **Q** **PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK**

8 **EXPERIENCE.**

9 A In 1983 I received a Bachelors of Science Degree in Electrical Engineering from

10 Southern Illinois University, and in 1986, I received a Masters Degree in Business

11 Administration with a concentration in Finance from the University of Illinois at

12 Springfield. I have also completed several graduate level economics courses.

13 In August of 1983, I accepted an analyst position with the Illinois Commerce

14 Commission (ICC). In this position, I performed a variety of analyses for both formal and

15 informal investigations before the ICC, including: marginal cost of energy, central

16 dispatch, avoided cost of energy, annual system production costs, and working capital.

17 In October of 1986, I was promoted to the position of Senior Analyst. In this position, I

18 assumed the additional responsibilities of technical leader on projects, and my areas of

19 responsibility were expanded to include utility financial modeling and financial analyses.

20 In 1987, I was promoted to Director of the Financial Analysis Department. In this

21 position, I was responsible for all financial analyses conducted by the staff. Among other

22 things, I conducted analyses and sponsored testimony before the ICC on rate of return,

1   financial integrity, financial modeling and related issues. I also supervised the

2   development of all Staff analyses and testimony on these same issues. In addition, I

3   supervised the Staff's review and recommendations to the Commission concerning utility

4   plans to issue debt and equity securities.

5   In August of 1989, I accepted a position with Merrill-Lynch as a financial

6   consultant. After receiving all required securities licenses, I worked with individual

7   investors and small businesses in evaluating and selecting investments suitable to their

8   requirements.

9   In September of 1990, I accepted a position with Drazen-Brubaker & Associates,

10   Inc. In April 1995 the firm of Brubaker & Associates, Inc. (BAI) was formed. It includes

11   most of the former DBA principals and Staff. Since 1990, I have performed various

12   analyses and sponsored testimony on cost of capital, cost/benefits of utility mergers and

13   acquisitions, utility reorganizations, level of operating expenses and rate base, cost of

14   service studies, and analyses relating industrial jobs and economic development. I also

15   participated in a study used to revise the financial policy for the municipal utility in

16   Kansas City, Kansas.

17   At BAI, I also have extensive experience working with large energy users to

18   distribute and critically evaluate responses to requests for proposals (RFPs) for electric,

19   steam, and gas energy supply from competitive energy suppliers. These analyses

20   include the evaluation of gas supply and delivery charges, cogeneration and/or

21   combined cycle unit feasibility studies, and the evaluation of third-party asset/supply

22   management agreements. I have also analyzed commodity pricing indices and forward

23   pricing methods for third party supply agreements. Continuing, I have also conducted

24   regional electric market price forecasts.

1   In addition to our main office in St. Louis, the firm also has branch offices in

2   Kerrville, Texas; Plano, Texas; Asheville, North Carolina; Denver, Colorado; and

3   Chicago, Illinois.

4   **Q   HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

5   A   Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of

6   service and other issues before the regulatory commissions in Arizona, Delaware,

7   Florida, Georgia, Illinois, Indiana, Michigan, Missouri, New Mexico, Oklahoma, South

8   Carolina, Tennessee, Texas, Utah, Vermont, West Virginia, Wisconsin and Wyoming. I

9   have also sponsored testimony before the Commission of Public Utilities in Kansas City,

10   Kansas; presented rate setting position reports to the regulatory Commission of the

11   municipal utility in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial

12   customers; and negotiated rate disputes for industrial customers of the Municipal Electric

13   Authority of Georgia in the LaGrange, Georgia district.

14   **Q   PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR ORGANIZATIONS**

15   **TO WHICH YOU BELONG.**

16   A   I earned the designation of Chartered Financial Analyst (CFA) from the Association for

17   Investment Management and Research (AIMR). The CFA charter was awarded after

18   successfully completing three examinations which covered the subject areas of financial

19   accounting, economics, fixed income and equity valuation and professional and ethical

20   conduct. I am a member of AIMR's Financial Analyst Society.

\\Snap4100\Docs\CJS\7902\Testimony\33238.doc